

Social Interaction of Preschool Children with Autism Spectrum Disorders (ASD) - Characteristics and Educational Approaches

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Abstract

The present study aims to study the social interaction of preschool children with Autism Spectrum Disorders (ASD) and the approaches they implement to educate them. The sample consisted of ten kindergarten educators and ten kindergarten teachers in special education. The qualitative method and interviews as a research tool were chosen, during which the educators submitted their experiences to the researcher. The processing of data was achieved through the thematic analysis, which was distinct for special education and general education teachers.

According to the results, children with disabilities have significant deficits in their social interaction and in general in all their social skills (Bania, Antoniou, Theodoritsi, Theodoritsi, Charitaki, & Billis, 2019). As foreseen, general education teachers have a lot of knowledge about ASDs, while specialists in the special framework are even more aware of autism and educational approaches that are being exploited.

Keywords — Social Interaction, Preschool Children, Autism Spectrum Disorders, Educational Approaches

I. INTRODUCTION

This research falls within the field of Special Education and general Education. In more detail, it aims at investigating the social interaction of pre-school children diagnosed with ASDs. In recent years the term autism tends to be replaced by the autistic spectrum, which is characterized by a variety of disorders in the social and communicative skills of individuals (Christakis, 2011). It is worth mentioning a recent definition of autism, according to which it is "a complex neurobiological disorder of lifetime, which is usually present at the birth of a child" (Kallergis and Nistikaki, 2018, p. 12). Its main goal is to support pre-school children in a general or special education kindergarten, where each child with autism is trained according to his / her level of functionality.

In order to conduct the research, the following research questions were raised:

1. What are the particular difficulties of the infant with ASD in terms of social interaction and the formation of relationships with peers and how these manifest themselves?
2. What are the particular difficulties of the infant with ASD in understanding and applying social rules and how do they manifest?
3. What are the particular difficulties of the infant with ASD in terms of play and how do these occur?
4. What are the particular difficulties of the infant with ASD in the level of emotional understanding, expression and recognition of emotions and how these manifest themselves?
5. What educational approaches are used by preschool educators to develop the social field of children with autism?
6. What educational approaches are used by pre-school teachers of general education to develop the social field of children with autism?

LITERATURE REVIEW

CHAPTER 1

MODERN DEFINITIONS OF AUTISM

According to the latest version of the DSM-V Diagnostic Manual (APA, 2013), as people with autism we consider those who have symptoms in a mild form and have an average or greater than average intelligence index. In DSM-V, the primary diagnostic criteria for Autism Spectrum Disorders (DOS) are five. More specifically there are shortcomings in social communication and social interaction of individuals in different environmental contexts. Also, these people have limited patterns of behavior and repeat specific activities.

It is important to note that symptoms are recognized from the first developmental period and clinically affect the social and any other important aspect of the functionality of individuals. Finally, it is argued that mental disability and ASD usually co-ordinate and social communication is characterized as lower than expected for overall developmental delay.

Noteworthy are the main diagnostic criteria of the World Health Organization's Diagnostic Manual, ICD-10. Particularly in Diffuse Developmental Disorders (DDD) are the forms of high and low functioning autism. IHFs are abnormal growth, which can be disturbed and manifested prior to three years of age. There are deficits in social traditions, communication and limited, recurrent behaviors (Siaperas, 2016).

Epidemiology

It is worth noting that in the seventies, autism was considered a rare disorder, as it was estimated that five-hundred thousand children had autism. In recent years experts have reported that one percent of children have some form of developmental disorder (Polychronopoulou, 2012).

Cooper, Hooper & Thompson (2012) conclude that autistic spectrum disorders are more common in modern times than in the past. This is due to the recognition of incidents and the sensitization of parents and teachers, not due to the increase of the phenomenon. Moreover, recent research data report high level of self-efficacy of special educators (Antoniou, Geralexis, & Charitaki, 2017).

According to recent epidemiological surveys, it is estimated that in Greece there are at least four to five thousand minors and adults who are diagnosed with cIAsDiC autism and twenty to thirty thousand people who exhibit developmental disorders belonging to the autistic spectrum (Hellenic Society for the Protection of Autistic People, 2019).

The Trinity of Autism Deficits vs. Lorna Wing

To carry out their important epidemiological study, L. Wing and J. Gould are distinguished. Researchers concluded that all children with social deficiencies had also stereotypical behaviors and almost all were distinguished for lack of speech or linguistic disturbance. Wing and Gould concluded that the features of autism can be interpreted as a "triad of disorders". This triad refers to three characteristics and not three different disadvantages. More specifically, these features include the disruption of social interaction, disorder in social communication and disruption of social imagination, flexibility of collective process, and imaginary (symbolic and symbolic) play. Wing concluded that the children, characterized by the triad of disorders, were born without or with limited the ability to understand and produce the normal sounds of the language. Still these children were distinguished by the inability to perceive their surroundings and the understanding of their complexity, as well as not realizing the inherent function of social interaction (Gonella, 2008).

However, this study raises a reasonable question, which refers to the likelihood if all children are distinguished for the three symptoms, then do these belong to a single spectrum and have the same anomaly? The answers to the questions about autism

are given through continuous research and the rapid developments of this issue (Gonella, 2008).

The characteristics of the Autism Spectrum Disorder (ASD)

The characteristics of people with autism, related to their social interaction and socio-emotional development, are considered the most important elements of their behavior. More specifically, these people from a young age have deficits in social and emotional reciprocity. This manifests as they avoid interpersonal contact with the eyes, show no interest in the face of others, fail to understand the facial expressions and feelings of others, are interested in a limited extent to come into physical contact with their parents, have a poor imitation and have difficulty understanding and using expressive gestures. A characteristic feature of children with autism is loneliness, which indicates lack of motivation and minimal desire for social traditions (Panteliadou and Argyropoulos, 2011).

Relevant research confirms that children with autism are lagging behind in all linguistic domains, namely phonology, vocabulary, syntax, morphology, and pragmatics. Their speech is characterized by stereotypical expressions, while very often they discuss issues of interest to themselves without participating in a particular debate. They also repeat information that does not interest others or ask questions, of which they already know the answer (Polemikos, 2010).

In addition, children with autism have a disturbance in imagination, which they manifest with stereotypical behaviors, such as object rotation and hand blows. Another way of expressing their imagination is rituals, adherence to specific objects or play points that are not functional (Panteliadou and Argyropoulos, 2011).

At pre-school age, where diagnosis is usually made of children with autism up to adulthood, their particular behaviors are becoming more and more distinct. Characteristic of children with ASD is their persistent involvement in sensory stimuli. In particular, they lick or place in their mouths items that are not eaten, smell some objects, click on different surfaces to hear their sound, turn their attention for a long time on shining lights or objects. Also, some children with autism rotate objects or flush their hands close to their eye level, flashing lights or looking at objects from different angles (Tsiouris, 2008).

According to Christakis (2011), the above characteristics are not observed in every child diagnosed with autism. It is possible that the specific characteristics of the same child are displayed differently in other children. This fact documents the view that children with autism can not be categorized into homogeneous groups based on their characteristics. Each child is separate and is

considered, according to his / her individual peculiarities.

Chapter 2

The importance of social interaction for children

According to Giddens (2002, p. 76), "socialization is the process by which the unprotected child gradually becomes a self-conscious and informed person who has acquired the skills required by the culture in which he was born". Socialization is not considered a kind of "social programming", since the child is not a passive receiver of the effects of his environment. It is argued that even the newborn infant has its needs and demands, which influence the behavior of the individuals who have the care of care. It is concluded that the child from the beginning of his life is an active subject (Giddens, 2002).

Notable are some definitions of the term "social interaction". In particular, Gotovos, as mentioned in Mpakitzis (2006), argued that the constant and parallel reference to the "other" and "ego" states that social interaction is a dialectical process where the subject shapes the circumstances and forms them. Also, Zoniou-Sideris (2011) analyzed this concept by accepting that it is the mutual influence among individuals, which aims at self-regulating their behavior and is related to the concrete action of their cooperation (Charitaki, Soulis, & Tyropoli, 2019).

In preschool age, the social capacity of the child is primarily related to his / her social behavior. This aspect of the socio-emotional development of the infant is considered one of the fundamental purposes of pre-school education. The child of this age group has deficits in the creation of interpersonal relationships that arise in kindergarten. For this reason, the educator is responsible for giving children a model of social behavior, adult or conversation, promoting new social transactions through different experiences, and designing appropriate educational activities that foster children's empathy (Laloumi-Vidalis, 2016). Every adult who surrounds children is obliged to encourage them to acquire empathy, that is to say, dexterity and careful listening and desire to see things on the side of other people (Gottman, 1997).

In particular, the development of the social interaction of children within the framework of kindergarten can be achieved by means of organized activities, which aim at acquainting children and fostering trust among them. Also, the main goals of the activities are the development of their communication, cooperation and the promotion of cooperative problem solving, which is achieved through the educator (Vairinou, 2008).

The social interaction of children with autism in pre-school age

It is well established in the scientific community that "ASDs are a diversion from the normal development of the brain", which starts from the early stages of pregnancy (Kotsopoulos, 2012, p.

134). This deflection differs in every case, resulting in a variety in the clinical profile and the way in which autism occurs in childhood. Deviation from brain development leads to disconnection and lack of coordination of neural networks.

A child with autism shows deficits in all social skills from as early as his infancy. Social skills are the development of an emotional bond with parents, combining attention (eye contact and gestures), social smile, imitation of movements and understanding of the feelings of the other person. Unlike a typical toddler, the infant with autism seeks to avoid other people and uses repetitive patterns of behavior. It has been scientifically proven that people with ASD consider and behave to other persons as objects and not as persons with whom they can communicate. Also, children with ASD have a deficit in social imitation and in their pre-school age, they develop symbolic play, rarely (Kakouros and Maniadaki, 2006).

According to an autobiography of a person with autism to adopt a socially acceptable attitude, it is considered necessary to come in contact with children of typical development as exemplified by them. This particular person reports that efforts have been made to incorporate it into the normal kindergarten and the first grades of elementary school. It characterizes the social interactions of individuals with ADHs as very complex due to the relative problems they face with their distraction. He claims that they need enough time to turn their attention elsewhere between the visual and acoustic stimuli they receive. Thus, they have difficulty responding to the ever-changing 'clusters' of social interactions (Quil, 1995).

Educational Approaches for the Social Development of Children with Autism

In the curriculum for pupils with autism (Mavropoulou, 2003) it is recorded that each intervention should be based on the capabilities and limitations of each child. Its main purpose is the social interaction of children with DF with their environment. Three learning strategies have been developed to achieve this goal. More specifically, "the structured framework of social interactions" helps the learner to understand the energy that needs to be done at the right time through the organization of space and the visualization of activities. ASDitionally, during "incident-based" teaching that takes place during physical events of the day, educators have the potential to enhance the social understanding of the child, having the appropriate cause (eg "you are angry because you spoiled your car". In addition, educators can carry out activities that promote the social interaction of these children by adjusting them to their natural environment (for example, being in close proximity to other children). It is worthwhile to highlight the thematic sections of the Social Skills Analytical Program of the students

with ASD. These are considered non-verbal social interaction, play and social interaction, behavioral organization, group skills, social-emotional skills, ASD skills, and sexual education.

To improve social and communication problems faced by children with autism in 1994, Carol Gray developed the "social stories" approach. More specifically, a social story is a social scenario that indicates to the child with an ASD the appropriate way of reacting to a situation that excites it and pushes it into aggression. Each story adjusts to the cognitive skills of each child (Tsikna, 2013).

Another technique that enhances the social interaction of children with ASD is the SPELL approach (Structure, Positive Attitudes, Empathy, Low Arousal, Links). One of the key features of the method is the structure that provides children with an environment without unpredictable situations that do not create anxiety. Transferring positive attitudes to children encourages them to have confidence and confidence in their abilities (Syriopoulou-Delli and Kasimos, 2013).

An educational approach aimed at the social development of children with autism is the Hashiguchi technique (daily life therapy). It is designed to promote teamwork and focus on the emotional stability of children by encouraging their physical exercise for their mental function and physical strength. Additionally, the Floor Time method aims to support children with autism in the sensory deficits they present so that they can communicate successfully with the important individuals in their lives. Relationship Development Interview (RDI) has as its main purpose the development of these children's relationships with their families and their friendly people (Papanis, Yavrimi and Viki, 2011).

Another approach is the DIR model, where the educator sits with the child and through the creative play, seeks to increase the pupil's interest in others, the communication and the development of his emotional intelligence (Stellatou and Mallopoulos, 2016).

Related research: Children with autism in kindergarten

The state aims at attending children with autism in nursery schools for special education and early intervention, which are within the nursery until their seven years (Pittou, & Charitaki, 2019). However, there are cases where children with autism attend normal nursery classes. Then, the educator is asked to integrate the child with autism into the formal educational process, without always having the specialized knowledge about it. In order to support this child, the class teacher is required to work closely with his / her parents and special therapists to implement appropriate interventions and set goals in his / her school context. The basic principles of the intervention programs, which can be applied to the kindergarten, are six. In particular, the educator

should motivate the child with autism for social interaction, motivating him to participate in group games and use the reinforcement system. It also has to ensure the child's success in the activities he conducts and promote his independence. In addition, the class nursery is required to integrate many routines into the daily program of the child's activities and to organize these activities by visualizing them in the form of images (Douvara, 2013).

A related survey, as recorded in Kourti (2002), was conducted by Soulis and Tsakali (2002) and studied whether preschool educators are properly prepared to implement effective educational approaches that promote acceptance of diversity. According to the results, kindergartens have children with autism in their classes in a small percentage and consider as a basic approach to support these children, the specialized knowledge about autism and any manifestation of diversity. Other research, report a clear differentiation in children's reactions in specific emotional situations through the use of ICT (Charitaki, 2015).

Another study involved a girl, four years old with autism and three classmates, of formal development. The researcher observed the girl with ASD during "structured activities" at the kindergarten (eg music-kinetics) to study the girl's "constructive participation" and during "unstructured activities" (eg, team play) to explore its communication skills. In this case, the child with autism has improved through his encounter with children of formal development and mainly through the appropriate intervention that was implemented in this context (Gena, 2002).

A recent survey, conducted in 2016, studied the case of inclusion of a high-functionality autistic child in general kindergarten. A three-month (five-weekly) intervention was conducted during which the researcher encouraged all children to participate in group activities, the main objective of which was the proximity and interaction of the children of formal development with the child with a ASD. According to the results, the researcher concluded that the children accepted their classmate's differentness and understood that they express their feelings in a peculiar way (for example, he declares his joy with the fluttering of his hands). Also, a child with a ASD accepted his defeat more easily, through the stability of compliance. He also participated in collaborative games as he imitated his classmates who supported him (Karayanni, 2016).

Concluding, in the Curriculum, as mentioned in Karayanni (2016), every moment for children with ASD should be a reason to strengthen their social skills. The active participation of these children in everyday social situations promotes their social interaction. The kindergarten of co-education in co-operation with their parents and the school community is required to direct children with ASDs to maintain and generalize the acquired behavior, as

they have difficulty behaving similarly in other settings, other than the kindergarten.

Research methodology

Method

The present study falls within the field of education. Kerlinger, as reported in Kasimatis (2008, p.98), who has defined scientific research as "the systematic, controlled, empirical and critical exploration of hypothetical propositions on the illustrated relationships between natural phenomena." The research process involves collecting, processing, analyzing data and drawing conclusions, aiming at formulating theories that state the evolution of phenomena. More specifically, the realization of a scientific research in the education sciences is called "Educational Research".

It is argued that the fundamental feature of scientific research is the scientific method. This is more about the research approach and less about research. The "content" of science is considered the method, as it can be applied in all scientific fields. In particular, the scientific method is conceived as an empirical process, which includes the observation of the phenomenon, the formulation of the research question and the hypotheses, the experimentation, the analysis of the data and the conclusion of conclusions (Pourkos and Dafermos, 2010). Crotty, as mentioned in Isaris and Pourkos (2015), defines methods as techniques or processes used by the researcher to collect and process the data associated with the research question or case.

Research strategy

For the purposes of this research, the qualitative method was considered appropriate. This methodology aims at studying new or relatively unknown cognitive objects and events. In particular, its realization is necessary in the investigation of attitudes, as it is difficult to draw conclusions through "conventional" quantitative methods (Kyriazopoulos and Samanta, 2011). For this reason, the qualitative method was chosen, as the perceptions of the general and special education nurses about the social interaction of pre-school children with pre-school DSP were studied through their daily practice.

The main objective of the qualitative methodology is the discovery of new dimensions of the subject investigated or its in-depth understanding rather than the control of the aforementioned cases (Tsiolis, 2013). According to Freebody, as recorded in Pourco and Dafermo (2010), qualitative research has five characteristics. In more detail, it provides a holistic approach to reality. Also, the character of the research has an influence on the researcher. This type of research collects research data through "natural" sources, ie non-laboratory infrastructures. Still, it is interested in the opinion of the subjects, in their inner life and not only in their external nature and, finally, is characterized by its humanistic orientation.

In this research, an overview has been used as a research approach, which studies a wide range of

issues, populations and programs, and aims to compute or describe any generic feature features. It is a research approach that provides descriptive, concluding and explanatory information. It also collects standard information using the same tools and questions for the entire sample participating in the survey (Cohen, Manion and Morisson 2000).

Sampling

For the purposes of this survey, symptomatic sampling or otherwise called in the scientific community sampling of convenience. Symptomatic sampling is part of the non-probability sampling category as it is based on the faces of a segment of the population specializing in the surveyed field and is available to participate (Babbie, 2008). Sampling is unlikely to be carried out in research efforts, where sampling with probability is not feasible (Zafeiropoulos, 2005). Sampling deals with the sample, chosen by the broader set, which is quite accessible to the researcher, with the result that he has easy access to it. It is argued that these samples do not represent the population and the findings of the survey can not be generalized. However, the use of this sampling is considered acceptable by young researchers, who carry out their first research attempts with limited expectations (Athanasiou, 2007). In the present survey, ten interviews were conducted in general education kindergartens and ten interviews in special education teachers in the personal space and time of the participants.

Research tools

The data collection tool used, the interview, is one of the most common techniques of a qualitative methodological approach. This process enables the researcher to obtain information and data through the analysis of predetermined cases. Through the interview, the necessary information is collected to control and interpret research questions. This research technique gives the opportunity to understand other people's views, as respondents are talking about their thoughts and perceptions behind their behavior (Kedra, 2008).

In this research effort, the type of semi-structured interview was selected. This type of interview is characterized by weak structure and greater flexibility in the formulation of questions and multiple responses (Rontos and Papanis, 2006). In more detail, the semi-structured in-depth interview is based on a number of questions and is used as a guide by young researchers on the issues that need to be covered during the course. This type of interview is distinguished by its willingness to change the content of the questions according to the interviewee. Also, it is characterized by the flexibility to deepen on certain issues with appropriate participants, the questionnaire and the addition or removal of questions or related issues for discussion (Issaris and Pourkos, 2015).

Data analysis

The analysis of the data of this research was realized through thematic analysis or otherwise called semantic. It is argued that this type of analysis is mainly used in psycho-pedagogical research. The semantic analysis of content deepens the terms, meanings, and themes related to the subject of the research. In this form of analysis, the researcher is asked to select and organize the categories, which are the essential content of a text or communication. He has to categorize words and subjects in such a way as to achieve the goal of research and not deviate from it at all (Vamvoukas, 2010).

Issues of Validity and Reliability

In the present study, reliability and validity are ensured in two ways. In particular, through the use of the Curriculum for Students with Autism in 2003. This research tool was used to design the questions of the semi-structured interview conducted by the researcher to collect her data. The second way is the triangulation of the data, which the researcher makes. In more detail, to investigate in depth the social interaction of preschool children with ASDs, it was necessary to conduct an equal number of interviews with kindergarten general and special education (Cohen, Manion and Morisson 2000).

Kelle, as recorded in Tsiolis (2013, p. 10), refers to the concept of triangulation, "the calculation of the exact position of a point by means of measurements made by two different fixed points". It follows that triangulation is the use of more than one method for exploring the same object of study. For the meaning of the same phenomenon, the term "triangulation" is also used. Denzin, as reported in Symeou (2006), argues that in cases where researchers apply and combine different methods to study the same phenomenon, they are triangular. Evangelou (2014) points out Silverman's view that the study of the same subject from different perspectives recommends the completion of the research image that the researcher acquires for it.

Ethical and Ethical Issues

The basic ethical and ethical issues are the conscious consent of the participants, the protection of personal information and the abuse of research results. The consent of the sample to the participation of the research presupposes that it is properly informed for the purposes of the research, the predicted consequences and the management of the research data. Also, participants have the opportunity to leave the survey at any time, without any impact. The security of personal data is linked to the inalienable right to privacy by focusing mainly on new technological means (Kainotomia, 2010-2011).

In the context of this research, the kindergartens of special and general education received an information form, which records all the necessary information, related to the research content and the personal data of the researcher, so that it is possible to communicate directly this and the sample. ASDitionally, reference is made to the purpose of the

research, as well as to the research process. Subsequently, the participants gave their signed consent, completing the corresponding form. Special emphasis was placed on the fact that they left the research at any time, without any consequence.

The sample was also informed of its anonymity, achieved through the encoding of its personal data and its storage in an electronic file, in which only the researcher will have access and will open by entering a code. Upon completion of the survey, the files will be stored and stored in a digitized and encrypted form at a secure location, which only the researcher will know and will have access to, and the printed files will be destroyed.

Data Analysis / Data Chat

The first question of the interview refers to the lack of motivation for social interaction of children with ASD and indifference to others. Of the ten general education nurses, the seven argued that they noticed a lack of motivation for social interaction of children with ASD and indifference towards others, while the other three did not observe the same. The ten nursery specialists have argued that children lack the incentive to social interaction and are indifferent to others.

The second question of the interview is related to the inappropriate way that children with ASD can approach others and whether the kindergartens have encountered difficulties in establishing relationships with their peers. Nine out of ten nursery educators in the general educational framework have argued that children inappropriately approach their peers and find it difficult to establish relationships with them. A nursery did not want to answer this question. Eight out of the ten nursery specialists noticed a failure to reach children with ASD compared to others.

The third question deals with the difficulties that children may have with ASD in understanding and applying social rules. Nine out of ten general education nurses agreed that children have difficulty understanding and applying social rules. Six out of ten special education nurses argued that they see difficulties in responding to social rules in children with ASD.

The fourth question of the interview refers to whether children with ASD are unable to express empathy. Eight kindergartens in general education responded positively, while two said they did not know if that was the case. Also, eight out of the ten special education teachers pointed out that children are unable to express empathy.

The fifth question relates to the difficulties that children with ASD may have about initiating and continuing a dialogue. Nine out of ten preschool educators argued that children struggled to start and continue a dialogue, while the tenth did not want to answer. The whole specimen of special education nurses replied that children with present significant difficulties in the field, this.

The sixth question refers to the difficulties that children with ASD face when it comes to understanding, expressing and sharing their feelings. The eight educators responded positively, while the ninth did not want to answer the question. In addition, eight pedagogues of the special educational framework reported that students have a great deal of difficulty understanding, expressing and sharing their feelings with others.

The seventh question of the interview deals with the difficulties that students may have in the game. All participating educators in general education have noticed that children with ASD have difficulty joining group games. The nine special education nurses have argued that students with ASD have significant difficulties in free, somatosensory, functional, symbolic, team play and rules playing. Three of them reported stereotyping.

The eighth question concerns the use of the basic principles of Structured Teaching by them. Four of the ten educators apply the basic principles of Structured Teaching. The eight special education nurses claimed to use the principles of Structured Teaching and reported their widespread meaning, T.E.A.C.C.H.

The last question of the interview refers to the use of general psycho-pedagogical methods that may be used by educators for one-to-one teaching and group teaching. These methods are incitement, physical guidance, model imitation, gesture guidance or auxiliary notions, guidance with visual stimuli, verbal guidance, systematic withdrawal of prompts, gradual behavioral conditioning, project analysis, teaching chain reactions and the cycle of systematic teaching.

Most kindergarten (six) guides students with ASD through gestures or auxiliary notions, through visual stimuli they use project analysis. The majority of nursery specialists (seven) are guiding children with visual stimuli.

Concluding Conclusions

By analyzing the interviews of nursery educators in general and special education, it is concluded that preschool children with ASD have difficulties in all aspects of their social life. More specifically, they have a lack of motivation for social interaction and have difficulties in establishing relationships with their peers. They also fail to understand and apply social rules. Difficult to play games that require interaction with others. In ASDition, they can not understand and externalize their feelings with social discrimination, but in an aggressive way.

It is concluded that general pediatricians have sufficient knowledge of autism and try to contribute to their full development as much as possible. They themselves say that they can not respond to the proper education of children with ASD, as they do not have the time, the hardware for the implementation of appropriate activities, and the necessary knowledge for their full integration.

On the other hand, kindergarten teachers have the knowledge to respond to the education of children with ASD and quite good logistical equipment, in the educational contexts where they are.

In the future, general education nurses could be trained through appropriate seminars to socially support children with autism, and special education lecturers could get more involved through specific programs and interventions.

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